



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
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OPP OFFICIAL RECORD
HEALTH EFFECTS DIVISION
SCIENTIFIC DATA REVIEWS
EPA SERIES 361

OFFICE OF
PREVENTION, PESTICIDES AND
TOXIC SUBSTANCES

MEMORANDUM

DATE: 2/21/01

SUBJECT: **Pyriproxyfen.** Residue Chemistry Review for Translation of Existing Tree Nut Data to Support Use on Pistachios. Joint Review Between California Department of Pesticide Regulation (Primary Review) and HED/OPP (Secondary Review).

Petition#: 0E06081	DP Barcode: D272708
PRAT Case#: 292433	PC Code: 129032
Trade Name: Knack	EPA Reg#: 59639-95
Class: Insecticide	40 CFR: §180.510

FROM: G. Jeffrey Herndon, Branch Senior Scientist
RAB1
HED (7509C)

TO: Shaja Brothers/Robert Forrest, P.M. Team 5
MUIRB
Registration Division (7505C)

and

William Donovan, Risk Assessor
RAB1
HED (7509C)

Attached is the residue chemistry review of the IR-4 request to establish a pyriproxyfen tolerance on pistachios based on the existing residue data supporting the existing tree nuts tolerance (specifically almond residue data). The review was jointly performed between Tom Leffingwell of the California Department of Pesticide Regulation and G. Jeffrey Herndon of RAB1/HED. T. Leffingwell performed the majority of the review and G. Herndon ensured that the conclusions were consistent with HED policy. The study met the requirements of OPPTS 860.1500. The residue chemistry supports the establishment of a pistachio tolerance of 0.020 ppm.

Attachment - Review of T. Leffingwell (3 pages)

cc: G.J. Herndon



Paul E. Helliker
Director

Attachment
Department of Pesticide Regulation



Gray Davis
Governor
Winston H. Hickox
Secretary, California
Environmental
Protection Agency

M E M O R A N D U M

TO: Barry Cortez
Chief
Pesticide Registration Branch

FROM: Tom Leffingwell
Chief Chemist

DATE: 2 February, 2001

SUBJECT: PETITION FOR THE ESTABLISHMENT OF A TOLERANCE FOR PYRIPROXYFEN IN/ON
PISTACHIOS

INTRODUCTION

The USDA IR-4 Program has submitted a petition for the establishment of a permanent tolerance for residues of the insecticide pyriproxyfen in/on pistachios (Pesticide Petition No. 0E6081)(DPR Tracking ID No. CR-185291-E, Record No. 177490, Volume 52080-219). The petitioner is proposing the establishment of a permanent tolerance for residues of pyriproxyfen *per se* as follows:

Pistachios 0.02 ppm

Pyriproxyfen, [2-[1-methyl-2-(4-phenoxyphenoxy)ethoxy]pyridine], is an analogue of an insect juvenile hormone and interferes with the hormonal control of insect growth and development, inhibiting egg hatch, larval embryogenesis, metamorphosis, and adult emergence. Pyriproxyfen is proposed for use in controlling various scale insects and Navel Orangeworms in pistachios.

DISCUSSION

The proposed use instructions for pistachios (Section B of the petition) are identical to those on the currently registered label for scale insect control in almonds (Section A of the petition). However, unlike the instructions for use on almonds, where there are additional instructions for suppression of Peach Twig Borers, no appropriate instructions are offered in the proposed use instructions for suppression of Navel Orangeworms in pistachios. A revised Section B should be submitted. The revision should contain instructions for suppression of Navel Orangeworms (if different than those for scale insects), including as appropriate, application equipment, (ground or air), gallonage, rates, whether or not spray oils or other spray adjuvants are to be used, and application timing.

No new residue chemistry data have been submitted to support this application. Section D of the petition cites previously submitted residue data for walnuts and almonds (MRID Nos.



44329511 and 44630101)(DPR Record ID No. 161821, Volume No. 52080-169, Tracking ID No. 172687, and Record ID No. 162810, Volume No. 52080-182, Tracking ID 173283, respectively). The federal Agency has agreed to allow the substitution of residue data derived from the use of Pyriproxyfen on almonds for those required to support this petition for a tolerance for Pyriproxyfen residues in or on pistachios. Reference is made to the following U.S. EPA memoranda, both dated 24 August 2000, (Appendices A and B):

- 1) "Review of Request for Residue Data Developed for Almonds to be Translatable to Pistachios for Establishing Tolerances." from Bernard A. Schneider, Chemistry and Exposure Branch 1, Health Effects Division (HED), to Hoyt Jamerson, Minor Use, Emergency Response, and Inerts Branch (MUERIB), Registration Division.
- 2) "HED ChemSAC Approval of Request for Residue Data Developed for Almonds to be Translatable to Pistachios for Establishing Tolerances." from William Hazel, HED Chemistry Science Advisory Council, to Hoyt Jamerson, MUERIB.

Accordingly, the evaluation document for the petition requesting the establishment of a tolerance for Pyriproxyfen in or on tree nuts suffices to cover this petition, as well. Reference is made to the U.S. EPA memorandum (Appendix C):

"PP#8F05022. Pyriproxyfen in/on Citrus, Fruiting Vegetables, and Tree Nuts. Evaluation of Residue Data and Analytical Methods. Chemical # 129032. DP Barcode D253836. Case 290406. Submission S548311. MRID #s 44630102 thru 44630107, and 44638301." from William H. Donovan, Registration Action Branch 1, HED, to Susan Lewis and Joseph Tavano, Product Manager Team 3, Registration Division, dated 25 March 1999.

This evaluation document finds the following, pertinent data requirements to be adequately filled:

- Nature of the Residues in Plants (OPPTS Guideline No. 860.1300)
- Residue Analytical Methods in Plants (OPPTS Guideline No. 860.1340)
- Multiresidue Method (OPPTS Guideline No. 860.1360)
- Storage Stability Data (OPPTS Guideline No. 860.1380)
- Crop Field Trials (OPPTS Guideline No. 860.1500)
- Confined and Field Accumulation in Rotational Crops (OPPTS Guideline Nos. 860.1850 and 860.1900)
- Product chemistry data for the source product for the technical grade of the active ingredient, 97% SUMILARV (EPA Registration No. 10308-11).

The addition of this crop to the Knack label does not raise any animal residue issues, because there are no pistachio processing fractions used as feed.

There are no Codex Alimentarius or Canadian Maximum Residue Limits for pyriproxyfen in or on any commodity. Mexico does not have an MRL for pyriproxyfen in or on pistachios, walnuts, almonds, or the tree nut crop group. Therefore, international harmonization is not an issue at this time.

CONCLUSIONS

Provided Sections B is revised as specified above, I conclude the residue chemistry data support the establishment of a permanent tolerance for pyriproxyfen in or on pistachio nut meats at 0.02 ppm.